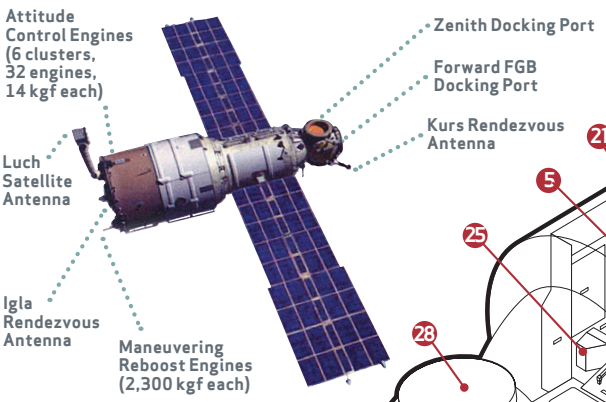
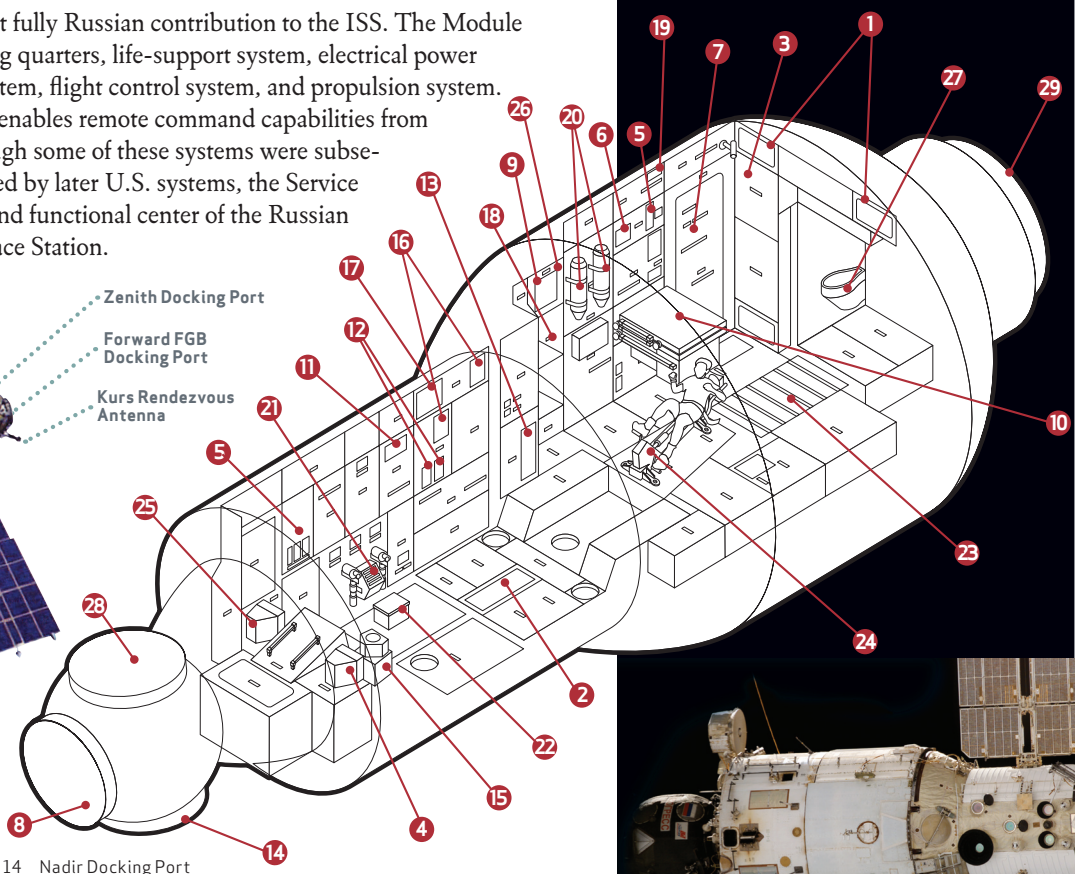
Service Module (SM)

Zvezda (Star)

Russian Federal Space Agency (Roscosmos)/ S.P. Korolev Rocket and Space Corporation Energia (RSC Energia)

The Service Module was the first fully Russian contribution to the ISS. The Module provided the Station's early living quarters, life-support system, electrical power distribution, data processing system, flight control system, and propulsion system. Its communications system still enables remote command capabilities from ground flight controllers. Although some of these systems were subsequently supplemented or replaced by later U.S. systems, the Service Module remains the structural and functional center of the Russian segment of the International Space Station.

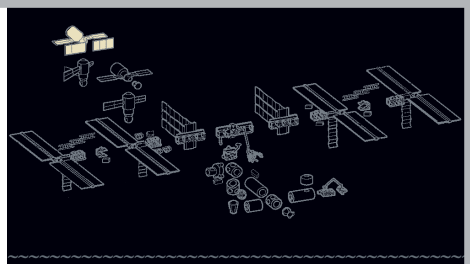


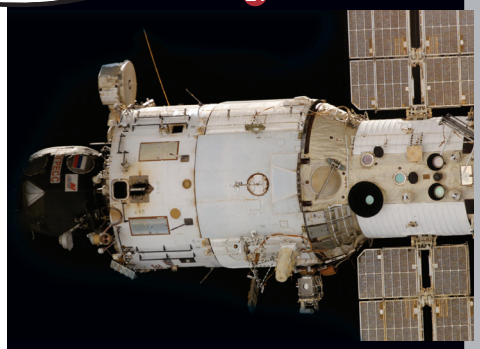


1 Airflow Vent
2 Body Mass Measurement Device
3 Camera
4 Caution and Warning Panel, Clock, and Monitors
5 Communications Panel
6 Condensate Water Processor
7 Crew Sleep Compartment
8 Forward Docking Port (to FGB)
9 Fuses
10 Galley Table
11 Integrated Control Panel
12 Lighting Control Panels
13 Maintenance Box
14 Nadir Docking Port
15 Navigation Sighting Station
16 Night-Lights
17 Power Distribution Panel
18 Recessed Cavity & Valve Panel
19 Smoke Detector
20 Solid Fuel Oxygen Generators (SFOG)
21 Toru Rendezvous Control Station
22 Toru Seat
23 Treadmill & Vibration Isolation System
24 Velo Ergometer
25 Ventilation Screen
26 Vozdukh Control Panel
27 Waste Management Compartment
28 Zenith Docking Port
29 Soyuz and Progress Docking Port

The SM under construction at Khrunichev State Research and Production Space Center in Moscow.

Leroy Chiao exercises in the SM.





Length	13.1 m (43 ft)
Diameter	4.2 m (13.5 ft)
Wingspan	29.7 m (97.5 ft)
Weight	24,604 kg (54,242 lb)
Launch date	July 11, 2000, on a Proton rocket
Attitude control	32 engines
Orbital maneuvering	2 engines